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September 7, 2007

PATENT APPLICATION
Docket No.: 2309.2007-600

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Hans Gröeblacher and James W. Nixon

Application No.: 10/803,161

Group: 3725

Filed: March 17, 2004

Examiner: Leyson, Joseph S.

Confirmation No.: 4140

For: EXTRUSION DIE

Date: _____
EXPRESS MAIL LABEL NO. _____

DECLARATION OF JAMES W. NIXON

1. I, James W. Nixon of 635 Oxford Drive, McPherson, Kansas 67460, declare and state that:
2. I am an engineer at American Maplan Corporation (American Maplan), located in McPherson, Kansas, and have been in the plastic extrusion field for over 7 years.
3. I am an inventor of the above referenced application, and I have reviewed the above referenced application, and as well as the Dukert, Huang, Stewart and Mehnert references.
4. For many years in the prior art, adjustable dies have been used for making simple shapes such as pipes, and can have various numbers of adjusting screws, sometimes 4, 6 or 8, for adjusting the die gaps. American Maplan has been making such dies for about 30 years. In the prior art field of extrusion, simple pipe shapes are considered simple enough to be adjustable. The Dukert reference discloses an example of an adjustable die for simple pipe shapes and the Stewart reference shows an example of a die with a simple circular profile having eight adjustment screws. Mehnert shows an example of another adjustable die for simple tubular or circular shapes having four adjustment screws.
5. In addition, for many years in the prior art, when a complex profile extrusion having multiple peaks and valleys was desired, a fixed or nonadjustable complex profile extrusion die was employed. In the prior art, such dies were made non adjustable because such profiles were considered too intricate and complex to be adjustable. Adjusting the gap of such a fixed complex profile die requires an engineer to physically remove material from the die surfaces until the proper gap is obtained. This process typically takes 1 to 2 days. Over time, the gap can change due to wear, and a new set of dies must be purchased. The Huang reference is an example of a nonadjustable or fixed die. Prior to the claimed present invention, fixed or non adjustable complex profile extrusion dies having multiple peaks and valleys were also made by American Maplan.

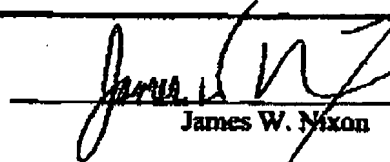
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6. Although adjustable dies for simple shapes (for example, as seen in Dukert, Stewart and Mehnert) simultaneously co-existed for many years with fixed or nonadjustable complex profile extrusion dies (for example, as seen in Huang), prior to the claimed present invention, no one to my knowledge in the extrusion field attempted to combine the two concepts to make such a complex die adjustable, despite the time and expense required to adjust prior art fixed dies.
7. I was involved when American Maplan first started making complex profile extrusion dies with multiple peaks and valleys, and the dies were fixed and nonadjustable. Despite being familiar with adjustable dies for simple pipe shapes (for example, as seen in Dukert, Stewart and Mehnert), and at the same time being familiar with fixed or nonadjustable complex profile extrusion dies having multiple peaks and valleys (for example, as seen in Huang), at that time, it was not apparent to me or suggested that a complex die having male and female complex shapes could be combined with an adjustment mechanism having at least eight adjustment screws, as in the claimed present invention, to adjust the gap of a complex die having such intricacy and complexity. My prior experience in the extrusion field, including my knowledge and beliefs of fixed complex profile dies, at that time taught against such a combination, despite the time and expense required in the prior art for adjusting complex dies. In addition, prior art fixed or nonadjustable complex profile extension dies typically consist of components that are assembled and pinned together in a configuration that is not suitable to modify for adjustment.
8. It was not until about a year later that we designed the claimed present invention. The benefit of the claimed present invention is that in comparison to the 1 to 2 days required to adjust the gap of a fixed complex die, the adjustable die of the claimed present invention can be adjusted in as little as a half hour. In addition, as the die wears, the gap can be readjusted to compensate for the wear rather than requiring the purchase of a new die.

The undersigned inventors declare further that all statements made herein of their own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signature


James W. Nixon

Date:

9/10/07